

5 OPERATIONS AND MAINTENANCE

The purpose of this chapter is to describe the staffing and other resources required to perform the operations and maintenance associated with this LMP. The implementation of this LMP will require staffing and resources in addition to those currently allocated to the AVWA and SCWA to perform the tasks that are described in Chapter 4, “Management Goals.”

In addition to financial resources, this LMP will require constant management to keep it current and revised as necessary. The resources and uses of the wildlife area and of the surrounding region will change, as will the policies and programs guiding resource management. In response to ongoing management and environmental change in the wildlife areas and surrounding region, management priorities may change and the LMP may need to be updated. Procedures to help keep this LMP current and relevant are included in Chapter 6.

5.1 OPERATIONS AND MAINTENANCE TASKS TO IMPLEMENT PLAN

Table 5-1, at the end of this chapter, summarizes goals and tasks identified in Chapter 4, “Management Goals,” and the labor required to implement them.

5.2 EXISTING STAFF AND ADDITIONAL PERSONNEL NEEDS

The two existing Department staff positions are shared among five wildlife areas in Plumas and Sierra counties: Hallelujah Junction, Chilcoat, Crocker Meadows, Antelope Valley, and Smithneck Creek. The current allocation of these positions to the AVWA and SCWA is insufficient to implement the tasks identified in this LMP. A change in the way all five of these Wildlife Areas are managed seems to be in the best interests of appropriate management. The Department is proposing to add two new full-time permanent positions, a Range A–B Wildlife Biologist and a Wildlife Habitat Supervisor, and the upgrade of the existing Fish and Wildlife Technician from a permanent-intermittent to a full-time permanent position. To adequately operate these Wildlife Areas will also require approximately 1.5 personnel years (PYs) of seasonal/scientific aide time. Among each category of staff described below, Table 5-1 distributes the hours necessary to implement each task of the LMP (described in Chapter 4).

5.2.1 SITE MANAGEMENT—ASSOCIATE WILDLIFE BIOLOGIST POSITION

Continued day-to-day operations will require 0.1 PY of an associate wildlife biologist position to be assigned to the AVWA and SCWA. This individual acts as the area manager for the AVWA and SCWA and divides his time among managing the five wildlife areas in Plumas and Sierra counties. This individual is responsible for performing administration, planning, and coordination of management and for the basic communication, monitoring, and support functions that are required for operation and maintenance of the wildlife areas. Implementation of the LMP will require that the area manager allocate approximately 208 hours per year to the AVWA and SCWA (Table 5-1).

5.2.2 SITE MANAGEMENT AND MONITORING—RANGE A-B WILDLIFE BIOLOGIST POSITION

Implementation of the LMP requires the allocation of 0.4 PY of a wildlife biologist to AVWA and SCWA. The Range A–B wildlife biologist’s tasks include species and habitat monitoring, development of specific habitat enhancement projects, developing control measures for invasive species, management review and coordination, and compliance with federal and state environmental and reporting regulations. The individual will assist other Department staff and volunteers performing maintenance and other tasks required to implement this LMP.

Implementation of the LMP will require that the biologist allocate approximately 830 hours per year to the AVWA and SCWA under the guidance of the area manager (Table 5-1).

5.2.3 SITE MANAGEMENT AND MONITORING—WILDLIFE HABITAT SUPERVISOR POSITION

Implementation of the LMP requires the allocation of 0.4 PY of a wildlife habitat supervisor to AVWA and SCWA. Tasks performed by the wildlife habitat supervisor will include the basic communication, planning and support functions that are required for operation and maintenance of the wildlife areas. Implementation of the LMP will require the wildlife habitat supervisor to provide approximately 830 hours per year of support to the AVWA and SCWA under the guidance of the area manager (Table 5-1).

5.2.4 OPERATIONS AND MAINTENANCE SUPPORT—FISH AND WILDLIFE TECHNICIAN POSITION

Implementation of the LMP requires the allocation of 0.25 PY of a wildlife technician to AVWA and SCWA. Under the direction of the wildlife habitat supervisor, the fish and wildlife technician will be required to perform maintenance tasks related to signing, fencing, access, and control of invasive, nonnative species and other habitat improvement projects. The fish and wildlife technician will also participate in habitat restoration activities, collection of habitat and wildlife data, and other monitoring activities. Implementation of the LMP will require the fish and wildlife technician to provide approximately 520 hours per year of support to the AVWA and SCWA under the guidance of the wildlife habitat supervisor.

5.2.5 OPERATIONS AND MAINTENANCE SUPPORT—FISH AND WILDLIFE SEASONAL AIDE/SCIENTIFIC AIDE POSITIONS

Implementation of the LMP will require the allocation of two to four fish and wildlife seasonal aide and/or scientific aide positions to AVWA and SCWA, together totaling approximately 0.5 PY. Under the direction of the wildlife habitat supervisor, the seasonal aides and/or scientific aides will be required to perform routine maintenance tasks and manual labor related to removal of trash and control of invasive, nonnative species and habitat restoration projects. The seasonal aides and/or scientific aides will also participate in habitat restoration activities, collection of habitat and wildlife data, and other monitoring activities. Implementation of the LMP will require that seasonal aides and/or scientific aides provide approximately 1,040 hours per year of support under the guidance of the wildlife habitat supervisor.

5.2.6 LAW ENFORCEMENT—FISH AND GAME WARDEN POSITION

To protect fish and wildlife resources and ecosystems, patrol of the AVWA and SCWA by a fish and game warden will be required. The warden will provide a presence to deter violations and will deal with fish and game violations and enforce other wildlife area regulations, including those related to authorized and unauthorized uses. Fish and game wardens patrol an assigned district, consisting of a county or a portion of a county. They patrol multiple wildlife areas as part of their overall responsibilities. Implementation of the LMP will require a fish and game warden to perform an estimated 208 hours per year of patrols and supporting activities at the AVWA and SCWA under the guidance of the Squad's Lieutenant (Table 5-1).

5.3 CAPITAL EQUIPMENT AND MATERIALS AND SUPPLIES

In addition to proposed staff of the AVWA and SCWA and additional labor (as described above), operation and maintenance of the wildlife area requires capital equipment and materials and supplies. These resources are described below.

5.3.1 CAPITAL EQUIPMENT

Initial additional equipment that would be required for implementation of this LMP will include:

- ▶ three operations vehicles to be shared with the other wildlife areas in Sierra and Plumas Counties (i.e., one-half-ton or three-quarter-ton four-wheel-drive pickups),
- ▶ one snowmobile for patrol and operations,
- ▶ two OHV “quads” for patrol and operations, and
- ▶ office space and equipment (e.g., computers, printer, phone) for the staff described above.

Occasionally, other capital equipment will be required for a particular task. The use of this equipment will be an operations and maintenance expense.

5.3.2 OPERATIONS AND MAINTENANCE

An operations and maintenance budget will be required to provide materials and supplies (e.g., office supplies, fuel) and additional labor (as previously described) to support management. This budget also will need to include costs of vehicle maintenance, small tools and materials for facilities maintenance (e.g., replacement signs), herbicides for control of invasive species, and garbage disposal fees. Costs for materials and supplies can be relatively large for some tasks, such as the eradication of invasive plant infestations; therefore, these tasks may be budgeted separately as capital improvement or habitat restoration projects, and not included in the general materials and supplies budget for the wildlife area.

5.4 FUNDING SOURCES

Several potential funding sources are available for capital improvements and restoration and enhancement projects within the wildlife area. These potential funding sources include:

- ▶ USFWS programs (e.g., State Wildlife Grant Program, Federal Aid in Wildlife Restoration Program);
- ▶ California Wildlife Conservation Board, Habitat Acquisition and Restoration Program;
- ▶ Sierra Nevada Conservancy;
- ▶ State Duck Stamp Program;
- ▶ Neotropical Migratory Bird Conservation Act Grants Program;
- ▶ Department programs (e.g., Comprehensive Wetlands Program);
- ▶ Department of Fish and Game Minor/Major Capital Outlay proposals;
- ▶ Programs authorized under current and future bond acts (e.g., Proposition 84 funds);
- ▶ U.S. Environmental Protection Agency grant programs; and
- ▶ National Fish and Wildlife Foundation grant programs (e.g., Bring Back the Natives, Five Star Restoration Challenge Grants).

**Table 5-1
Summary of Staffing Required to Implement the Land Management Plan**

Goals	Tasks	Annual Staff Hours ^{1, 2}						Frequency ³
		AWB	BIO	WHS	FWT	FGW	SA	
Biological Element								
Biological Goal 1: Protect, restore and enhance habitat, and regulate hunting to support an optimal size of the Loyalton-Truckee mule deer herd.	Task 1.1. Monitor seasonal deer abundance, habitat use, and migration routes to inform deer herd management decisions (see Research and Monitoring Element).	20	80	40	60	-	-	A
	Task 1.2. Protect, enhance, and restore riparian habitat (see Biological Goal 4 and the Watershed Restoration Element) to maintain and improve deer fawning habitat.	20	60	80	40	-	100	A
	Task 1.3. Protect and enhance mountain mahogany and bitterbrush habitat (see Biological Goal 5) to maintain and improve deer foraging habitat.	-	I	I	-	-	40	A
	Task 1.4. Monitor canopy coverage for densities supportive of deer foraging and cover habitat. Thin young conifers (see Biological Goal 6) as needed to maintain and improve deer habitat.	-	I	I	10	-	40	A
	Task 1.5. Manage invasive plant species such as cheatgrass (see Biological Goal 3), to maintain and improve deer foraging and cover habitat.	-	-	20	60	-	200	A
	Task 1.6. Prevent catastrophic fires (see Fuels and Fire Management Element) to maintain and improve all deer habitats, and to prevent deer mortality caused by fire.	I	I	I	I	I	I	A
	Task 1.7. Periodically evaluate the hunting program and regulations and recommend changes as warranted to maintain an optimal deer herd size (see Public Use Element).	20	48	20	-	-	-	P
	Task 1.8. Follow management recommendations provided in the Loyalton-Truckee Deer Herd Management Plan that are applicable to AVWA and SCWA.	I	I	I	-	-	-	P
Biological Goal 2: Maintain, enhance, and restore habitat for special-status species.	Task 2.1. Conduct, support, or encourage surveys and monitoring for willow flycatcher, yellow warbler, goshawk, special-status bat species, special status plant species, and other special-status species that may be present in AVWA and SCWA.	40	40	40	60	-	40	A

Table 5-1
Summary of Staffing Required to Implement the Land Management Plan

Goals	Tasks	Annual Staff Hours ^{1, 2}						Frequency ³
		AWB	BIO	WHS	FWT	FGW	SA	
	Task 2.2. Periodically visit populations of special-status species to assess overall habitat integrity, to detect changes in species distribution and abundance, and to detect adverse effects of human use, erosion or nonnative species.	-	I	20	40	-	-	P
	Task 2.3. Develop and implement enhancement strategies that use natural processes to improve habitat for special-status species.	-	I	I	40	-	100	P
	Task 2.4. Conduct management activities and manage public uses, especially grazing, timber harvest, and hunting activities, to minimize effects on areas known to be occupied by special-status species (e.g., northern goshawk, yellow warbler, special status plants).	-	20	I	-	20	-	P
	Task 2.5. Restore, protect, and enhance the ecological functions of Antelope Valley Creek and Bear Valley Creek (see Watershed Restoration Element) to enhance riparian and wet meadow habitat for special-status species dependent on this habitat (e.g., willow flycatcher, yellow warbler, bat species).	I	I	I	I	-	I	P
	Task 2.6. Ensure that all actions undertaken in the wildlife areas comply with the federal Endangered Species Act and California Endangered Species Act (including any applicable Habitat Conservation Plans or Natural Community Conservation Plans), Sections 401 and 404 of the Clean Water Act, Section 1602 of Fish and Game Code, and other applicable plans or regulations aimed at the protection of special-status species or their habitat.	20	40	20	-	-	-	P
Biological Goal 3: Prevent the introduction and spread of invasive species, and manage existing infestations.	Task 3.1. Prioritize management of the invasive species described in Section 3.3 based on their potential impacts to ecosystem functions (e.g., deer foraging habitat) and human uses (e.g., hunting and fishing) and the feasibility and impacts of controlling them. Follow existing federal and state priorities where appropriate.	-	20	20	-	-	-	P

Table 5-1
Summary of Staffing Required to Implement the Land Management Plan

Goals	Tasks	Annual Staff Hours ^{1, 2}						Frequency ³
		AWB	BIO	WHS	FWT	FGW	SA	
	Task 3.2. Determine appropriate prevention, eradication, and control options for priority invasive species; in making this determination, consider guidance available from the Department's Pesticide Use Program and from other organizations, such as the Plumas/Sierra counties Noxious Weed Management Group, UC Davis Weed Research and Information Center, The Nature Conservancy's Wildland Weeds Program, California Invasive Plant Council (CalIPC), California Department of Food and Agriculture Weed Management Area and Encycloweediea programs, Department of Pesticide Regulation the USFWS Nonnative Invasive Species Program.	20	40	40	-	-	-	P
	Task 3.3. Implement appropriate prevention, eradication, and control options for priority invasive species.	-	-	20	20	-	100	A
	Task 3.4. Implement specific cheatgrass control methods as time and budget allow.	-	-	20	20	-	100	A
	Task 3.5. Monitor hot spots of introduction of invasive species to enable early detection and rapid eradication of invasive plant and aquatic species (e.g., sites along Antelope Valley Road, along Bear Valley Road, along illegal or informal trails, at good fishing locations on Bear Valley Creek, and in recently burned or disturbed areas).	-	-	10	20	-	-	A
	Task 3.6. Conduct periodic resource monitoring (see Research and Monitoring Element), to note observations of new invasive plant or wildlife species, including location and abundance.	-	20	20	20	-	10	P
	Task 3.7. Clean vehicles and clothing before entering the wildlife areas (i.e., inspect and remove visible plant materials and mud, spray/rinse vehicles and equipment) if coming from an area known to be infested by invasive plant or aquatic species.	I	I	I	I	I	I	A
	Task 3.8. Use only certified weed-free fill and plant materials (e.g., seed mixtures, straw used for erosion control).	-	-	-	I	-	I	P
	Task 3.9. Coordinate with regional invasive plant control groups, such the Plumas/Sierra Counties Noxious Weed Management Group, and support efforts to manage invasive plants.	10	20	20	-	-	-	A

**Table 5-1
Summary of Staffing Required to Implement the Land Management Plan**

Goals	Tasks	Annual Staff Hours ^{1, 2}						Frequency ³
		AWB	BIO	WHS	FWT	FGW	SA	
	Task 3.10. Provide education and outreach regarding efforts to control invasive species, and support education and outreach efforts by other programs.	-	20	20	-	-	-	P
	Task 3.11. Apply pesticides in conformance with the Department's Pesticide Use Program to ensure safe and effective pesticide use that minimizes adverse environmental effects.	-	-	-	I	-	-	P
	Task 3.12. Periodically evaluate effectiveness of monitoring and control methods and adjust methods as needed.	-	20	40	-	-	-	P
Biological Goal 4: Protect, enhance, and restore riparian and wetland vegetation types.	Task 4.1. Monitor existing fencing precluding cattle from riparian areas. Maintain or add fencing as needed to protect important riparian areas from overgrazing, while ensuring that fenced areas remain available for deer fawning.	-	-	-	40	-	80	A
	Task 4.2. Identify specific locations of existing aspen stands with physical, biological, and economic (e.g., ease of access) conditions favorable for restoration or enhancement.	-	-	20	-	-	-	P
	Task 4.3. Develop plans and pursue funding for identified aspen enhancement or restoration projects; include goals, techniques, costs, monitoring, an adaptive management process, and a schedule; include the help of volunteers whenever practical.	10	20	40	-	-	-	P
	Task 4.4. Implement identified restoration and enhancement projects (e.g., removal of conifers to minimize shading) for aspen stands.	-	-	I	I	-	I	P
	Task 4.5. Prepare a THP prior to any timber harvest.	-	I	I	I	-	-	P
	Task 4.6. Restore the natural and historic hydrologic functions of Antelope Valley Creek and Bear Valley Creek watersheds (see Watershed Restoration Element).	I	I	I	I	-	I	P
	Task 4.7. Ensure that all actions undertaken in the wildlife areas comply with Section 401 and 404 of the CWA, Section 1600 of Fish and Game Code, and other applicable regulations aimed at the protection of riparian and wetland areas.	-	I	40	I	-	-	P

Table 5-1
Summary of Staffing Required to Implement the Land Management Plan

Goals	Tasks	Annual Staff Hours ^{1, 2}						Frequency ³
		AWB	BIO	WHS	FWT	FGW	SA	
Biological Goal 5: Restore and enhance mountain mahogany and bitterbrush vegetation types.	Task 5.1. Identify opportunities for restoration or enhancement in areas that previously supported bitterbrush and mountain mahogany vegetation types but were modified due to fires or other disturbance; assess physical, biological, and economic opportunities and constraints. Record all locations of these vegetation types in the Department's GIS database.	20	60	40	-	-	-	P
	Task 5.2. Develop plans and pursue funding for identified bitterbrush and mountain mahogany restoration or enhancement projects; include goals, techniques, costs, monitoring, an adaptive management process, and a schedule; include the help of volunteers whenever practical.	10	40	40	-	-	-	P
	Task 5.3. Implement restoration and enhancement projects (e.g., seeding, planting, soil amendments, watershed restoration) for the bitterbrush vegetation type, and for the mountain mahogany vegetation type if effective restoration or enhancement methods are developed.	-	20	20	40	-	40	P
	Task 5.4. Research existing literature addressing mountain mahogany regeneration to understand and manage for the current lack of regeneration.	-	10	20	-	-	-	P
	Task 5.5. Identify management practices that may enhance mountain mahogany and bitterbrush vegetation types in areas where they already exist.	-	I	I	-	-	-	P
	Task 5.6. Conduct and support studies of mountain mahogany regeneration and potential restoration or enhancement methods (see Research and Monitoring Element).	-	I	I	-	-	-	P
Biological Goal 6: Protect and enhance other upland vegetation types.	Task 6.1. Monitor regeneration of upland forests that were burned in the Cottonwood and Harding fires (see Research and Monitoring Element). Enhance these forests with additional seeding or planting as needed.	-	-	20	80	-	-	P
	Task 6.2. Evaluate the need to thin young conifers, consistent with the 2001 timber harvest and fire management goals, and conduct timber harvests as needed. Reevaluate the need for thinning approximately every 10–20 years.	-	I	I	-	-	-	P

**Table 5-1
Summary of Staffing Required to Implement the Land Management Plan**

Goals	Tasks	Annual Staff Hours ^{1, 2}						Frequency ³
		AWB	BIO	WHS	FWT	FGW	SA	
	Task 6.3. Prepare a THP prior to any timber harvest.	I	I	I	I	-	-	P
	Task 6.4. Restore the natural and historic hydrologic functions of Antelope Valley Creek and Bear Valley Creek watersheds (see Watershed Restoration Element).	I	I	I	I	-	-	P
	Task 6.5. Ensure that all actions undertaken in the wildlife areas comply with regulations and guidelines protecting unique or sensitive communities.	-	I	I	-	-	-	P
Biological Goal 7: Protect and enhance aquatic ecosystems and functions	Task 7.1. Monitor and assess human use, invasive nonnative aquatic species, and other effects on habitat for sport fish and other aquatic species (see Research and Monitoring Element).	20	I	20	40	-	-	P
	Task 7.2. Periodically evaluate angling use and regulations and recommend changes as warranted to maintain and enhance aquatic habitat for sport fish and other aquatic species.	-	I	-	-	-	-	P
	Task 7.3. Monitor existing fencing excluding cattle from riparian areas. Maintain or add fencing as needed to protect important aquatic ecosystems from cattle disturbance or pollution.	-	-	I	I	-	-	P
	Task 7.4. Ensure that all projects proposed within the watersheds of AVWA and SCWA provide protection measures for water quality (particularly erosion and sedimentation control measures), water quantity, stream buffers, and aquatic species.	-	I	I	-	-	-	P
	Task 7.5. Prior to implementing any construction projects including soil disturbance greater than 1 acre (or less, depending on current SWRCB regulations), prepare a SWPPP that identifies BMPs that will be used to eliminate or minimize the potential for construction-related pollution to enter stream flows directly, or through stormwater runoff.	-	-	I	I	-	-	P
	Task 7.6. Ensure that all actions undertaken in the wildlife areas comply with the ESA and CESA, Section 401 and 404 of the CWA, Section 1602 of Fish and Game Code, and other applicable regulations aimed at the protection of aquatic ecosystems.	20	40	40	-	-	-	P

**Table 5-1
Summary of Staffing Required to Implement the Land Management Plan**

Goals	Tasks	Annual Staff Hours ^{1, 2}						Frequency ³
		AWB	BIO	WHS	FWT	FGW	SA	
Biological Goal 8: Manage grazing to protect and enhance biological resources.	Task 8.1. Implement design features, Standard Management Requirements, and BMPs described in the BSA Allotment Management Plans Project Environmental Assessment to manage potential grazing impacts to special-status species; mule deer; riparian and wetland vegetation types; aquatic ecosystems; mountain mahogany, bitterbrush, and other upland vegetation types.	-	I	I	-	-	-	P
	Task 8.2. Rotate cattle to facilitate grazing during appropriate seasons and at an appropriate intensity to use grazing as a management tool for invasive plant species management.	-	I	I	-	-	-	P
Watershed Restoration Element								
Watershed Goal 1: Restore hydrologic stability and floodplain functions to Antelope Valley and Bear Valley creeks.	Task 1.1. Implement watershed restoration activities on Department lands as described in the watershed restoration program included herein as Appendix D.	80	80	80	80	-	100	P
	Task 1.2. Following implementation of the restoration activities in Appendix D, reevaluate the need for additional restoration actions approximately every five years.	-	40	40	-	-	-	P
	Task 1.3. Evaluate opportunities, constraints, and potential restoration benefits to identify feasible watershed restoration projects that would support the goals of this LMP, including review of existing documents and/or conduct of additional assessments.	-	40	40	-	-	-	P
	Task 1.4. Pursue funding and develop plans for identified restoration projects that include goals, techniques, costs, monitoring, an adaptive management process, and a schedule.	I	40	40	-	-	-	P
	Task 1.5. Cooperate with the development and implementation of local and regional restoration plans by other programs that are consistent with the goals of this LMP.	20	40	40	-	-	-	P
Watershed Goal 2: Document, understand, and respond to ecological changes and improvements resulting from restoration actions.	Task 2.1. Support and encourage the monitoring of baseline and post-restoration ecological conditions.	10	40	40	40	-	-	P
	Task 2.2. Establish permanent photo stations and seasonally or annually document the progress of hydrologic restoration, and riparian and wet meadow vegetation enhancement.	-	I	I	80	-	-	P

**Table 5-1
Summary of Staffing Required to Implement the Land Management Plan**

Goals	Tasks	Annual Staff Hours ^{1, 2}						Frequency ³
		AWB	BIO	WHS	FWT	FGW	SA	
	Task 2.3. Make adaptive changes to stream restoration design, as necessary, following the results of monitoring.	-	I	I	I	-	-	P
Research and Monitoring Element								
Research and Monitoring Goal 1: Support appropriate scientific research and encourage or conduct research that contributes to management goals of the AVWA and the SCWA.	Task 1.1. Review and evaluate proposed research projects utilizing the following criteria. <ul style="list-style-type: none"> ▪ Potential for research results to improve management of the AVWA, SCWA or other wildlife areas; ▪ Potential conflicts between the research and compatible public uses; ▪ Potential conflicts between the research and any biological goals stated in this plan; ▪ Potential contribution of the research to science and society; and ▪ Potential for the research to interfere with or preclude certain types of future research at the AVWA or the SCWA. 	20	40	40	I	-	-	P
	Task 1.2. Provide letters or permits to researchers specifying dates and times of authorized access, and information on regulations and area restrictions.	-	I	-	-	-	-	P
	Task 1.3. Require that researchers provide copies of data and/or published papers to the Department, and contact researchers to ensure this requirement is fulfilled.	-	I	-	-	-	-	P
	Task 1.4. Actively promote the wildlife areas to regional academic institutions as a resource available for research activities.	-	I	-	-	-	-	P
	Task 1.5. Establish long term working relationships with regional academic institutions.	10	20	-	-	-	-	P
	Task 1.6. Encourage long-term studies of water quality and quantity, special-status species populations, and other topics that could inform management of the wildlife areas. Encourage consistent monitoring methodology between long-term monitoring efforts and monitoring tasks outlined in the Watershed Restoration Element.	10	20	-	-	-	-	P
	Task 1.7. When conducting plant surveys, follow survey protocol outlined by DFG, USFWS, and CNPS, as appropriate according to the species' listing status.	-	I	-	-	-	-	P

Table 5-1 Summary of Staffing Required to Implement the Land Management Plan								
Goals	Tasks	Annual Staff Hours ^{1, 2}						Frequency ³
		AWB	BIO	WHS	FWT	FGW	SA	
	Task 1.8. When conducting wildlife surveys, follow DFG, USFWS, or USFS survey protocol as appropriate according to the species listing status.	-	I	-	-	-	-	P
Public Use Element								
Public Use Goal 1: Install signage that provides information to the public about compatible public uses of AVWA and SCWA	Task 1.1. Inform users regarding the location and boundaries of AVWA and SCWA by providing locator signs and property boundary signs at major access points (e.g., Hwy. 89, Bear Valley Road, and at illegal OHV access points).	-	-	I	30	-	-	P
	Task 1.2. Inform users regarding compatible public uses of AVWA and SCWA by providing bulletin boards at formal entrances to the wildlife areas.	-	-	I	I	-	-	P
	Task 1.3. Select signage locations and styles that are consistent with the rural character of the region and the aesthetics of the natural environment in the wildlife areas.	-	-	I	I	-	-	P
Public Use Goal 2: Encourage and support compatible, safe, and legal public use of wildlife areas through public outreach, regulations, and agreements	Task 2.1. Implement a public outreach program to increase the awareness of visitors and potential visitors to the Sierra Valley region about AVWA and SCWA, existing public use opportunities, and regulations. Hold public information meetings periodically to inform the public about particular management issues requiring focused attention.	20	60	60	-	-	-	P
	Task 2.2. Provide information on the Department's website and published outreach materials to inform the public about AVWA and SCWA.	-	20	20	-	-	-	A
	Task 2.3. Develop an agreement with the Feather River Archery Club for a permanent archery range, open to the public and maintained by the club, at one of the wildlife areas.	I	I	I	-	-	-	P
	Task 2.4. Periodically conduct reviews of public uses of the wildlife areas and evaluate rules, regulations, guidelines and materials to ensure compatibility of public uses.	-	I	I	-	-	-	P

**Table 5-1
Summary of Staffing Required to Implement the Land Management Plan**

Goals	Tasks	Annual Staff Hours ^{1, 2}						Frequency ³
		AWB	BIO	WHS	FWT	FGW	SA	
Public Use Goal 3: Support the use of AVWA and SCWA for environmental education	Task 3.1. Provide staff assistance, interpretive materials, and provision of permits for environmental education activities.	-	20	40	20	-	-	P
	Task 3.2. Encourage all environmental education and natural resource interpretation (informal education) users to incorporate the Department's guidelines for natural resource education messages in their field environmental education activities, curriculums, and interpretive programs, both on and off-site.	-	40	40	-	-	-	P
	Task 3.3. Coordinate with non-profit groups (e.g., National Audubon Society, Cal Trout, FRCRM) that promote wildlife-dependent recreational opportunities and that can provide additional support to the Department's management of AVWA and SCWA.	20	40	40	-	-	-	P
	Task 3.4. Develop a plan to provide interpretive information at key locations (e.g., the proposed Bear Valley Creek restoration site) where visitors can observe natural resources, resource degradation and management challenges, or the application of methods to restore compromised habitats.	-	20	20	I	-	-	P
	Task 3.5. Enlist the cooperation of local volunteers, such as residents and students of the Sierra Valley, when implementing projects (such as restoration or enhancement projects) that may be educational for the volunteers. Include such volunteer labor as an "in-kind" funding source in grant applications, whenever possible.	-	20	I	-	-	-	P
Public Use Goal 4: Discourage destructive and illegal public use of wildlife areas through enforcement of regulations.	Task 4.1. Assess and monitor where wildlife areas are seeing heaviest OHV use or other forms of illegal resource degradation.	-	-	I	40	-	-	P
	Task 4.2. Install physical barriers (e.g., boulders, split-rail fencing) at points frequently used to access or traverse Department property illegally via OHVs. Select barriers that are consistent with the rural character of the region and the aesthetics of the natural environment in the wildlife areas.	-	-	-	20	20	20	P

**Table 5-1
Summary of Staffing Required to Implement the Land Management Plan**

Goals	Tasks	Annual Staff Hours ^{1, 2}						Frequency ³
		AWB	BIO	WHS	FWT	FGW	SA	
	Task 4.3. Depending on the fluctuating magnitude and type of illegal public use, such as OHV use, out-of-season hunting, or tree removal, increase Department presence in wildlife areas, and increase the frequency of the assignment of penalties, as necessary. Enforce laws and request assistance from the County Sheriff as necessary to enforce laws.	-	-	-	-	180	-	A
	Task 4.4. Restore ecosystems damaged by unauthorized uses as necessary.	-	20	20	I	-	20	A
Public Use Goal 5: Evaluate requests by Native Americans for use of the wildlife area for activities such as gathering native plant materials for cultural purposes.	Task 5.1. Work with native peoples requesting access to determine the purpose and need for access and/or collections within the wildlife areas based on applicable laws and treaties related to tribal use of state properties.	-	I	I	-	-	-	P
	Task 5.2. Develop access plans and issue permits for native peoples that are compatible with the goals of the LMP. Any authorization for access would identify species, limits, locations, seasons, and include standard liability clauses.	-	I	I	-	-	-	P
Fuels and Fire Management Element								
Fire Goal 1: Coordinate fire preparedness and response with local and regional fire management agencies	Task 1.1. Provide maps to local fire authorities, including the Fire Management Officer at the Sierraville Ranger District and the Fire Chief at the Truckee CAL FIRE Station, which indicate the location of sensitive resources requiring careful consideration during a fire incident. Ensure that details of confidential information are not inappropriately circulated.	10	-	I	I	-	-	A
	Task 1.2. Provide maps to local fire authorities, including the Fire Management Officer at the Sierraville Ranger District and the Fire Chief at the Truckee CAL FIRE Station, which indicate the location and type of fuels treatments previously completed within the AVWA and SCWA.	-	20	I	I	-	-	A
	Task 1.3. Provide contact information for the Department's Agency Representative to the Grass Valley Emergency Command Center (ECC), local fire authorities, and the TNF management office in Nevada City. Obtain comparable contact information from these agencies. Update this information annually.	-	20	I	I	-	-	A

Table 5-1
Summary of Staffing Required to Implement the Land Management Plan

Goals	Tasks	Annual Staff Hours ^{1, 2}						Frequency ³
		AWB	BIO	WHS	FWT	FGW	SA	
	Task 1.4. Review existing TNF fire suppression procedures to identify fire suppression tactics that could have long-term effects on ecosystems. Recommend avoidance or modification of those tactics whenever feasible in order to avoid or minimize long-term effects on the ecosystems of the AVWA and the SCWA.	-	20	20	I	-	-	P
	Task 1.5. Coordinate with the Battalion Chief of the TNF Sierraville Ranger District to obtain and review copies of local incident command procedures and agreements applicable to fire suppression at the AVWA or the SCWA. Provide input for these approaches to ensure consistency with Department goals. Determine if the Department could aid appropriate fire suppression responses (e.g., installing locator signs within the wildlife areas for fire-fighting personnel.)	10	16	16	-	-	-	P
	Task 1.6. Meet semi-annually with local fire authorities to discuss fire-related issues relevant to AVWA or SCWA, including vegetation management and other forms of fuels management.	-	8	8	-	-	-	A
Fire Goal 2: Protect people and property from fire hazard while maintaining sensitive resources to the extent practicable.	Task 2.1. Train the Wildlife Area Manager to serve the role of Resource Specialist or Agency Representative through the Incident Command System (ICS). As part of the ICS, make available the Wildlife Area Manager or another local plant, wildlife, and fisheries specialist from the Department's staff to provide advice during fires that threaten habitat at AVWA or SCWA.	16	16	-	-	-	-	P
	Task 2.2. Develop maps identifying critical areas where emergency revegetation or mechanical or structural measures may be necessary to prevent excessive erosion or flooding post-fire. Implement such measures as appropriate following fire or fire suppression.	-	20	40	-	-	-	P
	Task 2.3. Review and comment on any fuels or fire management projects proposed in the future for the AVWA, the SCWA, or the surrounding TNF lands to ensure consistency with Department goals, such as protection of natural resources.	I	40	60	-	-	-	P

Table 5-1
Summary of Staffing Required to Implement the Land Management Plan

Goals	Tasks	Annual Staff Hours ^{1, 2}						Frequency ³
		AWB	BIO	WHS	FWT	FGW	SA	
	Task 2.4. Develop maps identifying areas of sensitive resources that may require specific management actions for appropriate prescribed burning activities (e.g., season-specific burning in areas of special-status plant or wildlife species, or invasive plant species).	-	-	I	-	-	-	P
	Task 2.5. Implement tasks described in the Biological Element to manage the introduction and spread of invasive plant species that may increase fire hazards (e.g., cheatgrass).	-	20	20	60	-	60	P
	Task 2.6. Review and comment on any fuels or fire management projects proposed in the future for AVWA, SCWA, or the surrounding TNF lands to ensure consistency with Department goals, such as protection of natural resources.	-	40	20	-	-	-	P
	Task 2.7. Identify and implement project-specific BMPs to minimize construction-related fire hazards during any construction activities that require the use of mechanical equipment.	-	20	20	-	-	-	P
Facility Maintenance Element								
Facilities Goal 1: Add, improve, and maintain existing structures for resource protection, education, safety, and appropriate public use of the wildlife areas.	Task 1.1. Install new facilities as described in the Biological, Public Use, Cultural, and Fuels and Fire Management Elements to support attainment of related goals.	20	40	40	20	-	150	A
	Task 1.2. Establish an annual monitoring and reporting program of wildlife area facilities (e.g., condition of signs, structures, etc.).	-	20	20	I	-	-	A
	Task 1.3. Fix or replace facilities as needed, and adapt facility management approach, based on the results of the annual monitoring program.	-	20	20	20	-	100	A
	Task 1.4. Document facilities needs in Department maintenance and capital outlay database.	20	40	20	-	-	-	A

**Table 5-1
Summary of Staffing Required to Implement the Land Management Plan**

Goals	Tasks	Annual Staff Hours ^{1, 2}						Frequency ³
		AWB	BIO	WHS	FWT	FGW	SA	
Administration Element								
Administration Goal 1: Maintain existing data and agreements concerning the management and resources of the wildlife areas.	Task 1.1. Regularly update GIS data sources as information becomes available.	-	30	I	20	-	-	A
	Task 1.2. Maintain accurate financial records regarding expenditures, staff, maintenance, funding, and other administrative duties.	20	40	80	-	-	-	A
	Task 1.3. Maintain the existing ground lease agreement with the SVRCD to allow local reinvestment of funds generated by the wildlife areas.	-	20	20	-	-	-	A
	Task 1.4. Administer renewal, modification, and termination of grazing allotments and timber sales, as necessary.	-	I	I	-	-	-	P
	Task 1.5. Coordinate with local user groups to obtain volunteer labor when possible. Quantify and record this resource to be referenced as “in kind” contributions in grant applications.	-	-	20	-	-	-	P
	Task 1.6. Investigate options that may be available to obtain consistent, dedicated funding sources that are not dependent on fluctuating State funds for management of the wildlife areas.	I	40	I	-	-	-	P
Administration Goal 2: Streamline administrative requirements and processes by combining AVWA and SCWA as one wildlife area.	Task 2.1. Recommend to Department headquarters that for SCWA Title 14, California Code of Regulations section 551(q), and any other applicable regulations be adopted to be consistent with AVWA.	40	-	-	-	-	-	P
	Task 2.2. Recommend to Department headquarters that AVWA and SCWA be combined as one wildlife area.	I	-	-	-	-	-	P
	Task 2.3. Obtain concurrence from the Director of the Department, and submit the recommendations to the FGC.	I	-	-	-	-	-	P
	Task 2.4. Upon obtaining approval from the FGC, update records, publications, and websites to reflect this change.	I	-	-	-	-	-	P
Management Review and Coordination Element								
Management Goal 1: Ensure regulations and management practices at AVWA and SCWA support attainment of LMP goals.	Task 1.1. Review, and as necessary revise, regulations and management practices at the wildlife areas to be consistent with and to support attainment of the goals of this LMP. Periodically conduct reviews of public uses of AVWA and SCWA and evaluate rules, regulations, guidelines and materials to ensure compatibility of public uses.	I	20	20	-	10	-	A

**Table 5-1
Summary of Staffing Required to Implement the Land Management Plan**

Goals	Tasks	Annual Staff Hours ^{1,2}						Frequency ³
		AWB	BIO	WHS	FWT	FGW	SA	
Management Goal 2: Continue coordination with other law enforcement agencies.	Task 2.1. Meet regularly with law enforcement staff from the Sierra County Sheriff's Department and other agencies (such as the Truckee office of the California Highway Patrol and CAL FIRE) as appropriate to coordinate law enforcement activities and explore options for cooperative programs.	I	40	20	-	10	-	A
	Task 2.2. Pursue joint funding requests with other law enforcement entities to address law enforcement concerns.	-	-	-	-	I	-	P
Management Goal 3: Maintain relationships with neighbors to address management issues.	Task 3.1. Meet or correspond with local landowners and user groups, as needed, to maintain communication about the management needs of AVWA and SCWA, to obtain access and use input regarding the wildlife areas, to convey useful information regarding management activities, to foster a sense of investment in the wildlife areas, to ensure that they know who to contact if they wish to report any issues, to promote educational activities, and to recruit volunteers to assist with management actions when appropriate.	20	40	20	-	-	-	P
Management Goal 4: Coordinate with federal, state, and local organizations regarding plans and projects that may affect resources at AVWA and SCWA, or may be affected by management actions at AVWA and SCWA.	Task 4.1. Review, coordinate, and provide comments and recommendations on federal, state, and local government plans; special plans; and proposed projects, as appropriate, for the purpose of determining the consistency of such plans with the goals of the Department's management plans.	30	10	20	-	-	-	P
	Task 4.2. Participate in other regional planning and resource management efforts, and coordinate with regional non-governmental organizations, as appropriate (e.g., Quincy Library Group, Sierra Nevada Forest Plan, Sierra Nevada Framework, Sierra Nevada Alliance, Sierra Nevada Conservancy, Sierra Fund, Upper Feather River Integrated Regional Water Management Plan, California Wilderness Coalition, High Sierra Rural Alliance) to support the attainment of wildlife area management goals.	40	20	20	-	-	-	P
	Task 4.3. Coordinate with regional agencies, stakeholders, and educational institutions to implement knowledge exchange (e.g., to organize data and create databases relevant to specific resource issues, provide educational workshops.)	I	I	24	I	-	-	P

Table 5-1
Summary of Staffing Required to Implement the Land Management Plan

Goals	Tasks	Annual Staff Hours ^{1, 2}						Frequency ³
		AWB	BIO	WHS	FWT	FGW	SA	
	Task 4.4. Coordinate with the local school district to encourage environmental education and to recruit volunteers to assist with management actions when appropriate.	-	-	I	I	-	-	P
	Task 4.5. Continue to coordinate with Department wardens, land managers, and resource specialists in surrounding regions for assistance with law enforcement and resource management.	20	20	40	-	I	-	P
	Task 4.6. Continue to participate in the Sierra Valley Coordinated Resource Management Plan and with the other signatories of the plan (including the Sierra Valley Resource Conservation District, the Natural Resources Conservation District, the Plumas Corporation, and the Feather River CRM); encourage and support a renewed interest among signatories to meet regularly to facilitate the coordination of land management and planning activities among public agencies and private landowners; collaborate with signatories in funding management actions when possible.	80	40	40	-	-	-	P
	Task 4.7. Coordinate with the following organizations regarding resource management, knowledge exchange, and the specific topics described below: Sierra County, City of Loyalton, TNF – Sierraville Ranger District, RWQCB/SWRCB, DWR, CALFIRE, Plumas-Sierra Agricultural Commissioner, U.S. Fish & Wildlife Service, and Caltrans.	I	40	40	-	-	-	P
Management Goal 5: Ensure that management actions minimize air quality, noise and hazardous impacts.	Task 5.1. Prior to conducting any construction projects involving the use of hazardous materials typically associated with construction activities, such as oils and fuels, require that contractor(s) establish a construction staging area at which hazardous materials will be stored and disposed of during construction, and prepare an accidental spill prevention and response plan specifying BMPs aimed at reducing the risk of hazardous spills. Implement the plan during construction activities.	-	-	I	-	-	-	P

**Table 5-1
Summary of Staffing Required to Implement the Land Management Plan**

Goals	Tasks	Annual Staff Hours ^{1, 2}						Frequency ³
		AWB	BIO	WHS	FWT	FGW	SA	
	Task 5.2. Prior to conducting any management projects that would require an acre or more of soil disturbance, submit a Dust Control Plan to the Northern Sierra Air Quality Management District (NSAQMD) for review and approval. Include in this plan the fugitive dust control BMPs to be implemented to control the release of dust to the atmosphere, and to ensure that fugitive dust does not exceed opacity limits or go beyond construction boundaries.	-	-	I	-	-	-	P
	Task 5.3. Prepare an emissions reduction plan for any management projects that may involve the simultaneous use of more than approximately 6 excavators, 6 rubber tired dozers, and 2 other material handling equipment. Provide the plan to the NSAQMD for review and approval; include a comprehensive list of construction equipment, and demonstrate that heavy-duty vehicles to be used during construction of the project, including owned, leased, and subcontractor vehicles, would not exceed NSAQMD air quality standards for emissions. Outline and implement BMPs (e.g., use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, emulsified diesel fuel, and particulate matter traps; limiting equipment idling; limiting the use of large diesel powered generators; and maintaining equipment to manufacturer specifications) as necessary to minimize construction emissions.	-	-	I	-	-	-	P
	Task 5.4. Prepare a noise reduction plan for any management projects in SCWA that may involve the simultaneous use of multiple pieces of construction equipment within 500 feet of any sensitive receptors (e.g., residences) to ensure that construction activities will not exceed Sierra County General Plan noise standards. Implement BMPs (e.g., limiting the simultaneous use of multiple pieces of construction equipment, limiting work hours, using commercial or plywood noise barriers, consulting with Sierra County and nearby residents) to minimize construction noise such that it does not substantially increase ambient noise levels or expose sensitive receptors to excessive noise levels for an excessive period of time.	-	-	I	-	-	-	P

Table 5-1
Summary of Staffing Required to Implement the Land Management Plan

Goals	Tasks	Annual Staff Hours ^{1, 2}						Frequency ³
		AWB	BIO	WHS	FWT	FGW	SA	
Cultural Element								
Cultural Goal 1: Catalog and preserve known significant cultural resources identified within AVWA and SCWA.	Task 1.1. Limit public access and further vandalism to petroglyphs located on Department property by installing exclusionary fencing. Select fencing location and styles that are consistent with the rural character of the region and the aesthetics of the natural environment in the wildlife areas.	-	-	20	20	-	100	P
	Task 1.2. Limit public access and discourage vandalism of the historic sawmill site located on Department property by avoiding the construction of trails or roads in the vicinity.	-	-	I	-	-	-	P
	Task 1.3. Avoid soil disturbance around the petroglyphs and the sawmill. If disturbance is unavoidable, mark these resources as no-entry areas before any soil disturbance activities occur within 50 feet, and retain a qualified professional archaeologist to monitor all ground-disturbing activities.	-	-	I	-	-	-	P
Cultural Goal 2: Catalog and preserve all unknown significant prehistoric, historic-era, or present-day Native American cultural resources that documentary and/or field investigations identify within AVWA and SCWA.	Task 2.1. Conduct cultural resource surveys as necessary prior to ground-disturbing activities, including planned watershed restoration projects. Prepare an “inadvertent discovery plan” to be utilized during implementation of any project involving ground-disturbance. The inadvertent discovery plan shall refer to and outline state law regarding the discovery of human remains and include a requirement to consult with a qualified archaeologist in the case of a discovery of cultural resources or human remains during ground-disturbing activities.	-	20	-	-	-	-	P
	Task 2.2. If cultural resources are found during surveys or excavation, complete and submit resource documentation to the California Historical Resources Information System. If these resources are potentially eligible for listing on the National Register of Historic Places and/or the California Register of Historical Resources, submit evaluations of these resources to the State Historic Preservation Officer and the Office of Historic Preservation.	-	20	-	-	-	-	P

**Table 5-1
Summary of Staffing Required to Implement the Land Management Plan**

Goals	Tasks	Annual Staff Hours ^{1, 2}						Frequency ³
		AWB	BIO	WHS	FWT	FGW	SA	
	Task 2.3. When facility improvements or restoration efforts are proposed that may affect significant cultural resources, consult the CEQA guidelines and/or Section 106 of the National Historic Preservation Act (if federal involvement) for guidance on compliance with regulations.	-	20	-	-	-	-	P
	Task 2.4. As opportunities and funding allow, conduct pedestrian surveys for cultural resources in areas that have not already been surveyed. Inventory any resources discovered on Department property that may warrant management actions to facilitate preservation of the resources.	-	20	20	-	-	-	P
	Task 2.5. Support efforts to document the history of human activities at the wildlife areas.	-	20	20	-	-	-	P
TOTALS		208	830	830	520	208	1,040	

Notes:

¹ AWB = associate wildlife biologist – responsible for overall site management, administration, and coordination with other agencies and groups; BIO = biologist—responsible for planning and directing wildlife species monitoring activities, habitat management, and management coordination; WHS = wildlife habitat supervisor—implementation of wildlife habitat management activities, development of survey methods, and ability to identify plants and wildlife in the field; FWT = fish and wildlife technician—responsible for tasks such as operation and maintenance of equipment, weed control, facilities maintenance, monitoring and maintenance; FGW = fish and game warden—responsible for law enforcement; SA = seasonal aides/scientific aides—responsible for executing routine operations and maintenance tasks under supervision of permanent personnel. Hours estimates are approximate.

² I = Hours have been included in those for another closely related task.

³ A = annually; P = periodically (hours entered are assumed to be spent on average over a five-year period).